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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BRIARCLIFF MANOR, NY 10510

EXAMINER

BLOOM, NATHAN J

ART UNIT

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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,863	Applicant(s) DIEDERIKS ET AL.	
	Examiner NATHAN BLOOM	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' response to the last Office Action, filed on December 1st, 2008 has been entered and made of record.

Response to Arguments

2. Applicant's arguments filed 12/01/2008 have been fully considered but they are not persuasive.

Applicants' have argued in page 9-10 of the remarks that McClure does not disclose an image processing means arranged to eliminate highlights. Examiner has shown that McClure has taught that it is necessary to adjust the lighting in the case that headlights are shining into the camera (blinding lights), but has not disclosed a particular method of correction. However, as has been shown by the teachings of Trifonov the adjustment of lighting in an image so that bright regions are reduced to a desired level was known to one of ordinary skill in the art at the time of the invention. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the imaging lighting (brightness) condition method of McClure with well known modern image processing techniques for reducing bright regions in an image (blinding lights) such as taught by Trifonov. One of ordinary skill in the art at the time of the invention would have had a reasonable expectation of success in modifying the device and method of McClure to utilize the image processing method of Trifonov to reduce bright lights caused by headlights ("blinding lights"). Additionally, Trifonov has taught the adjustment of overall image contrast by reducing the bright regions and brightening

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the dark regions to create an image with balanced image brightness and enhanced clarity (images with bright regions cause a “washing-out” of the image data, and reduce visibility of objects in these regions).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-15 rejected under 35 U.S.C. 103(a) as being unpatentable over McClure (US 7006129 B1) in view of Schofield (US 2002/0003571) and Trifonov (US 2003/0053690).

Instant claim 10: A viewing system, comprising:

display means [*McClure: 130 Fig. 4, 230 Fig. 5*]; and

an imaging system connected to the display means [*McClure: 132 camera Fig. 4, 250 Fig. 5, 150 Fig. 2-3 and 6*],

wherein the display means is arranged to display an image based on signals received from the imaging system, the spatial orientation of the display means being adjustable, and

wherein the imaging system further comprises [*McClure: Display shows image based on signals received from imaging system, see Fig. 3-4 and lines 41-62 of column 2*]

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(a) orientation adjusting means arranged to adjust the viewing orientation of the imaging system [*McClure: 130, 158, 156, 152, 154 of Fig. 4*],

(b) sensor means for detecting adjustments in the orientation of the display means and [*McClure: 134 and 136 of Fig. 4*]

(c) image processing means arranged to process the image [*McClure: 132 of Fig. 4, the driver is the device the processes image for display*], the sensor means being connected to the orientation adjustment means and the orientation adjusting means being arranged to adjust the viewing orientation of the imaging system based on signals received from the sensor means [*McClure: Fig. 4 and lines 41-62 of column 2, lines 42+ of column 4 and lines 1-7 of column 6*],

the image processing means being arranged to process additional information concerning the status of the vehicle or its surroundings for display on the display means, [*McClure: McClure teaches an image processing means but does not disclose the processing of additional information. Schofield discloses a rear-view imaging system similar to that taught by McClure without the sensor and orientation means. Schofield: paragraph 0009-0010 displays additional overlaying information. The processing device is not described, but in order to obtain and display this information it is known to one of ordinary skill in the art that the information. Motivation: Schofield paragraph 0004, 0265, 0328 state the need for an adjustable camera so that the driver can have the desired view. It would have been obvious to one of ordinary skill in the art to combine the teachings of Schofield and McClure to provide the user with an interior rearview mirror viewing system that maximizes desired rearward view by supplying the driver with a means to adjust the field of view.*]

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the viewing system further comprising an image processing means arranged to eliminate high lights that cause blinding in a registered image [McClure teaches in lines 38-44 of column 7 that correction of highlights (bright, saturated, or overexposed region) in an image was known in the art at the time of the invention, but does not go into specifics as to whether this correction was done with lens adjustment or digital enhancement means. However, as is evidence by the teachings of Trifonov the (histogram equalization) correction of shadow or highlight regions of a captured digital image by digital means was well known in the art at the time of the invention after the image has been "registered" (registered is being interpreted as the image having been obtained/captured by the system). See paragraphs 0005-0008 and 0034 of Trifonov for further discussion of the manner of the correction. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device and method of "blinding light" (headlights) adjustment of McClure to control image brightness with a known digital techniques as taught by Trifonov to reduce image noise and improve image usability by reduction of brightness in image regions that are overly bright. Furthermore, one of ordinary skill in the art at the time of the invention would have had a reasonable expectation for success in combining the teachings of Trifonov (image processing method) with McClure (unknown camera adjusting method to reduce brightness caused by headlights shining into the camera "blinding lights") to digitally enhance the images captured by the device of McClure. Additionally, see the above response to Applicants' remarks.].

Instant claim 11: Viewing system according to claim 10, wherein imaging system comprises one or more cameras positioned in a vehicle chosen from the group of: rear-view camera; interior

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camera; fire camera; blind angle camera [*McClure (Fig. 2-3) and Schofield both disclose the use of rearview cameras as has been previously disclosed. Furthermore, Schofield in Figs. 16-33 has disclosed the use of an interior and side-view (blind spot) cameras has been disclosed. Also, as is evidenced by Ross (US 2003/0214584) the use of side-view (blind spot) (see 30 of Fig. 1) cameras that are controllable by the driver was known to one of ordinary skill in the art. See paragraph 0021.*]

Instant claim 12: Viewing system according to claim 10, wherein the image processing means are arranged to display one or more images at the same time or one after the other on the display means [*McClure: Discloses the display of a single image in lines 41-62 of column 2. Schofield also discloses the display of at least a single image as is shown in Fig 39A. Furthermore, it is known to one of ordinary skill in the art to display multiple images in parallel as is evidenced by Li (DE 29612536 U1).*].

Instant claim 13: Viewing system according to claim 10, wherein the viewing system further comprises selection means connected to the image processing means to select which image and/or which additional information is displayed by the display means [*Schofield: paragraph 0009-0010 displays additional overlaying information. Selection of information taught in paragraphs 0063 and 0305-0306.*].

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Instant claim 14: Viewing system according to claim 10, wherein the display means are positioned as a rear-view mirror in a vehicle [*McClure: Lines 41-62 of column 2. Schofield: Fig. 1-9 and various other figures include different embodiments*].

Instant claim 15: Viewing system according to claim 10, wherein the display means are adjustable in a tilt and a pan direction [*McClure: lines 41-62 of column 2, Fig 2-4, and lines 42+ of column 5 where X and Y direction refer to rotation about the horizontal and vertical axis.*].

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClure, Schofield, and Trifonov as applied to claims 10-15 above, and further in view of Ross (US 2003/0214584).

Instant claim 1: (Currently amended) Viewing system comprising display means and an imaging system connected to the display means [*See analysis of instant claim 10*],

the display means being arranged to display an image based on signals received from the imaging system [*See analysis of instant claim 10*],

the spatial orientation of the display means being adjustable [*see analysis of instant claim 10*],

the imaging system comprising a plurality of cameras, each of the cameras providing a different view and [*See analysis of instant claim 10 for single camera, but McClure does not disclose multiple cameras. Ross taught the use of driver controllable side-view (blind spot) (see 30 of Fig. 1) in paragraph 0021. It would have been obvious to one of ordinary skill in the art to*

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combine the teachings of Ross with those of McClure, Schofield, and Trifonov to enhance the vision of the driver by reducing the vehicle's blind spots (see Abstract of Ross).]

the imaging system further comprising orientation adjusting means arranged to adjust the viewing orientation of the imaging system, characterized in that the viewing system further comprises sensor means for detecting adjustments in the orientation of the display means, the sensor means being connected to the orientation adjustment means and the orientation adjusting means being arranged to adjust the viewing orientation of the imaging system based on signals received from the sensor means, [See analysis of instant claim 10 for single camera, but McClure does not teach multiple cameras.]

the viewing system further comprising an image processing means arranged to eliminate high lights that cause blinding in a registered image. [See analysis of claim 10.]

The limitations of instant claims 2-8 have been shown to be taught by McClure in view of Schofield as per rejection of instant claims 10-15.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on 571-273-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624